QUICK CARD

Ethernet Y.1564 SAMComplete Layer 2 Service Acceptance Test

This quick card describes how to configure and run a Y.1564 SAMComplete Layer 2 Traffic Test for Metro Ethernet service activation. The quick card documents a procedure to set up the OneAdvisor on a 1GigE Optical Interface, but the same workflow may be applied to other data rates.

EQUIPMENT REQUIREMENTS

- OneAdvisor 800 equipped with the following:
  - RAxxMA-O Radio Analysis Module, SPA06MA-O Spectrum Analyzer Module, TM400GB-QQ 400G Module, or TM400GB-QO 400G Module.
  - Transport software release V5.1.0 or greater
  - CA10M1GE or ONA-SP-10M1GE 1-Gigabit Ethernet option
- Optical Transceiver supporting the Ethernet data rate to be tested (SFP, SFP+, SFP28, QSFP28, QSFP-DD, etc.)
- Cables to match the optical transceiver and the line under test
- Fiber optic inspection microscope (P5000i, FiberChek Probe, or INX-760)
- Fiber optic cleaning supplies

Figure 1: Equipment Requirements

LAUNCH TEST

1. Press the Power button 🔘 on the ONA-800 base top panel to turn on the OneAdvisor.

2. Tap 🏠 **Home** to display the Home Screen.

3. Tap 📊 **Tests** to display the Tests menu.

4. Tap **Radio Analysis Transport >** or **400G Transport >** to show the Transport test application.

5. Tap the **Transport** icon.

6. If the **Select Test** menu is not displayed, tap **>> All Tests** in the lower left screen corner.

7. Using the **Select Test** menu or favorite test list, launch the Ethernet Y.1564 SAMComplete Layer 2 Traffic test for the desired data rate and port (P1 or P2). For example:
   Ethernet ►1GigE Optical ► Y.1564 SAMComplete ► L2 Traffic ► P1 Terminate or
   Ethernet ►1GigE Optical ► Y.1564 SAMComplete ► L2 Traffic ► Terminate.

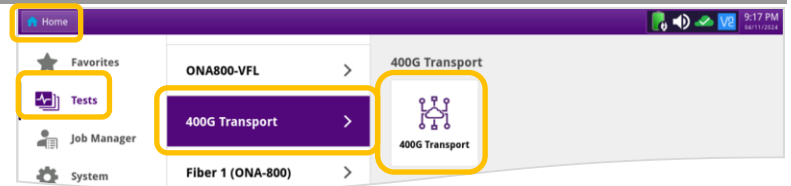8. Tap the **Go →** button next to "**Start a New Configuration (reset to defaults)**"
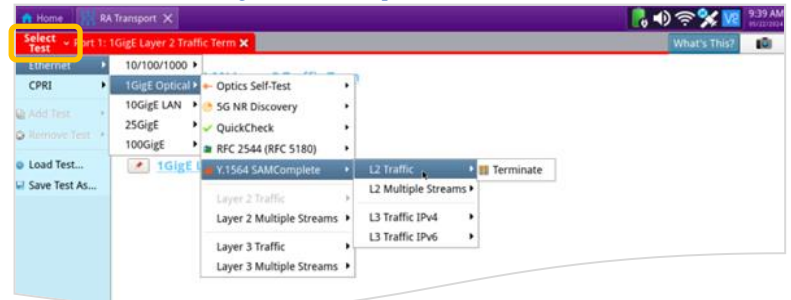

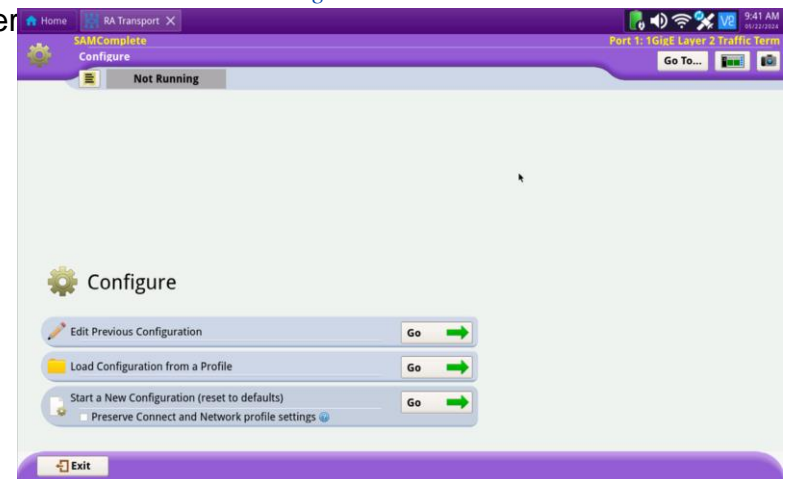*Figure 2: Transport Launch screen*

Figure 3: Select Test

Figure 4: Configure

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CONFIGURE TEST

► The following Information is needed to configure the test:

- Frame Size (64 to 1518, User Defined, Random, Jumbo, or EMIX)
- VLAN ID, if VLAN tagging is used.
- Committed Information Rate (CIR)
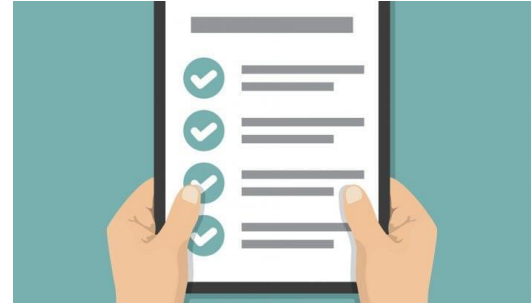- Pass/Fail Threshold for Frame Loss Ratio, Delay, and Delay Variation (Jitter)

Figure 5: Work Order

1. Tap the **Next →** button to display the **Local Network Settings 1** screen.

   ► Select the **Frame Size** you wish to generate.

2. Tap the **Next →** button to display the **Local Network Settings 2** screen.

   ► If you are testing a VLAN, set **Encapsulation** to **VLAN** and enter the **VLAN ID.**

   ► If you are using a VIAVI instrument or hard loop for loopback, proceed to page 3. If your loopback device is a non-VIAVI instrument that does respond to VIAVI Loop Up messages:

   – Tap Set Loop Type, EtherType and MAC addresses.
   – Set **Loop Type** to **Unicast**
   – Set **Destination MAC** to the MAC address of the loopback device.
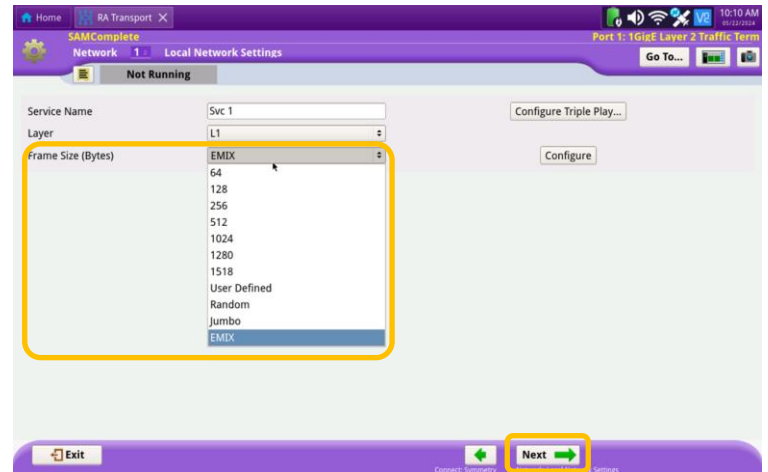   – Tap the **← Back** button.
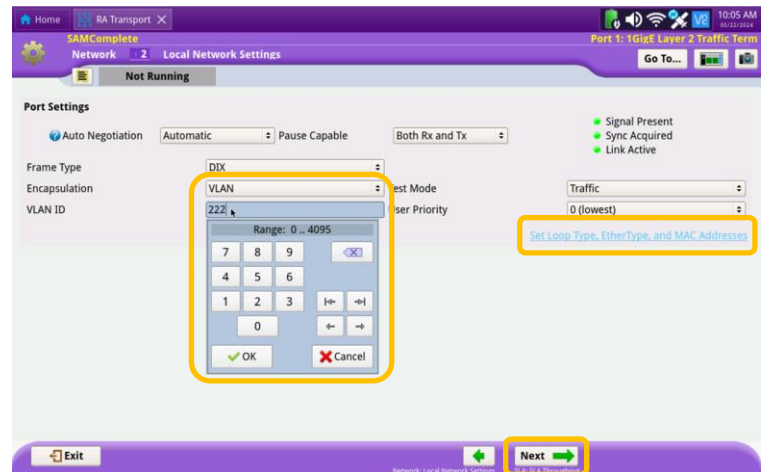

Figure 6: Local Network Settings 1

Figure 7: Local Network Settings 2

4. Tap the **Next →** button to display the **SLA Throughput** screen.
   - ► Enter the Committed Information Rate (CIR).
   - ► If the you are testing at full line rate or if traffic is not being policed, uncheck the **Policing** checkbox.
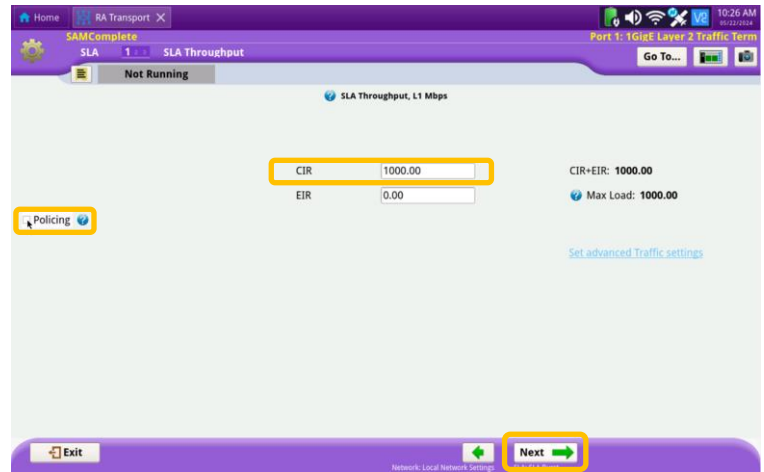

Figure 8: SLA Throughput

5. Tap the **Next →** button twice to display the **SLA Performance** screen.
   - ► Enter the Pass/Fail Thresholds for Frame Loss Ratio, Frame Delay, and Delay Variation (Jitter)
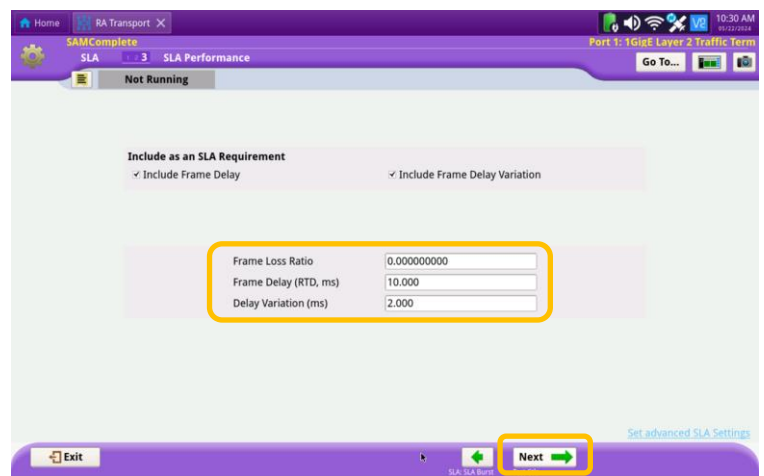

Figure 9: SLA Performance

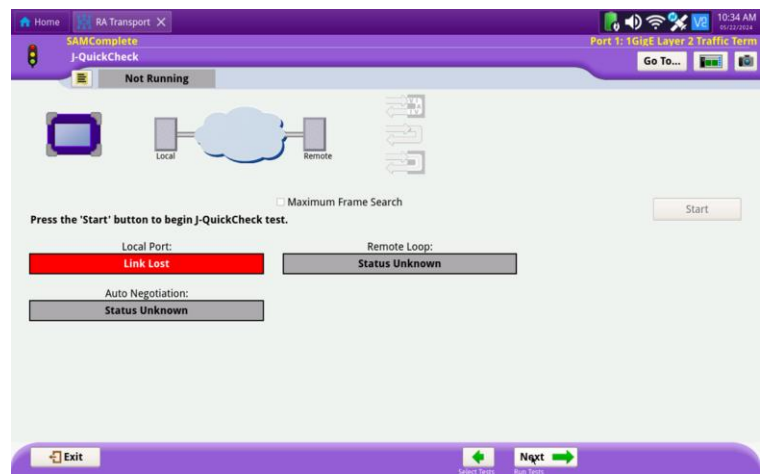6. Tap the **Next →** button 5 times to display the **J-QuickCheck** screen.

Figure 10: J-QuickCheck

QUICK CARD

CONNECT TO LINE UNDER TEST AND LOOP BACK DEVICE

► **For Optical Interfaces:**

1. Use the VIAVI P5000i, FiberChek Probe or INX 760 microscope to inspect both sides of every connection being used (SFP, attenuators, patch cables, bulkheads)
   - Focus the fiber on the screen.
   - If it appears dirty, clean the fiber end-face and re-inspect.
   - If it appears clean, run the inspection test.
   - If it fails, clean the fiber and re-run inspection test. Repeat until it passes.

2. Insert desired Optical Transceiver into the Port 1 SFP or QSFP slot on the top of the OneAdvisor.

3. If necessary, insert optical attenuators into the SFP/QSFP TX and/or RX ports.

4. Connect the SFP/QSFP to the port under test using a jumper cable compatible with the line under test.
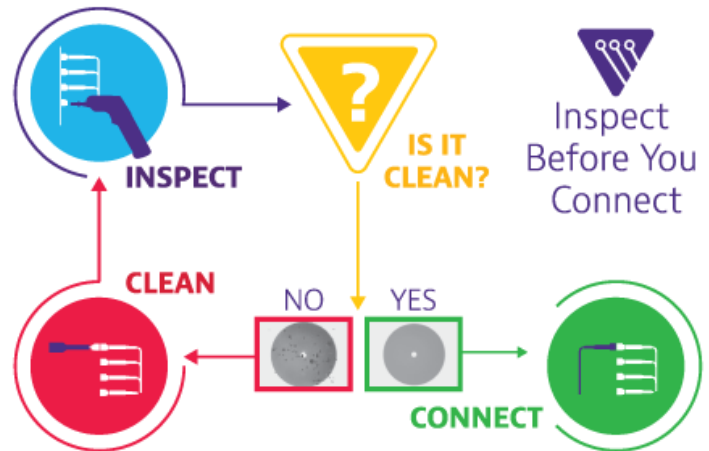
► **For Copper 10/100/1000BASE-T interfaces**:

1. Insert Copper SFP into the Port 1 SFP or slot on the top of the OneAdvisor.

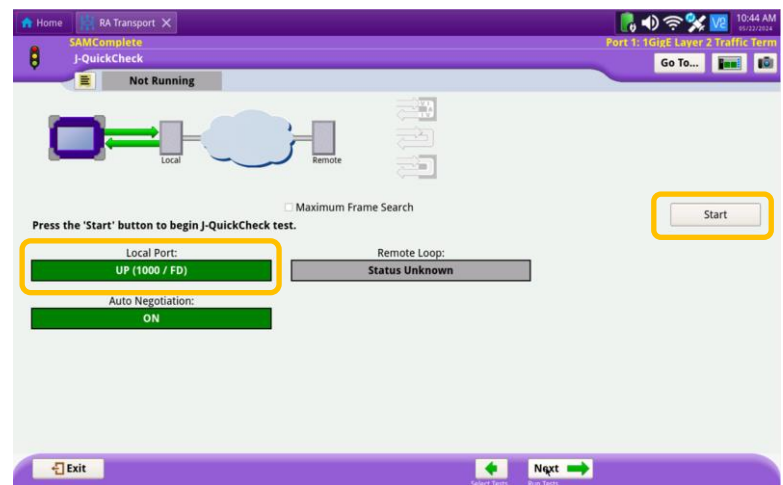2. Connect the copper SFP to the port under test using CAT 5E or better cable.

► Verify that **Local Port** status is **UP** and Full Duplex (**FD**)

► Tap the **Start** button.

► Verify that the **Remote Loop** is recognized.

► Tap the **Next →** button to display the **Run Y.1564** Tests screen.
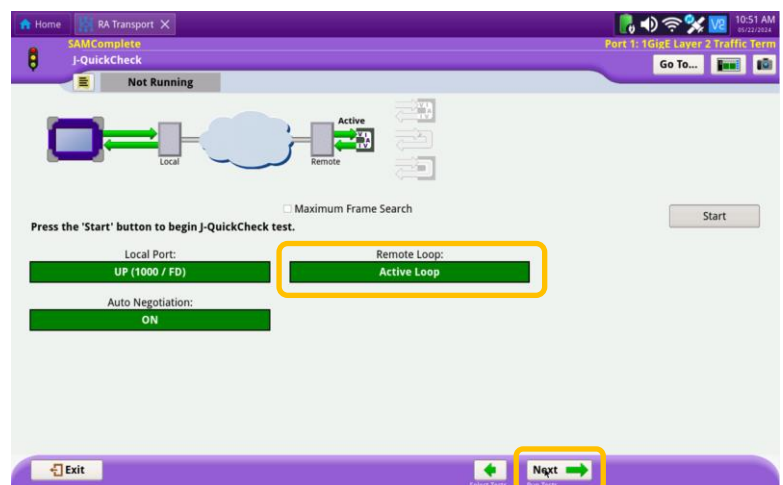

Figure 11: Inspect Before You Connect

Figure 12: Local Port status

Figure 13: Run J-QuickCheck

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RUN TEST

1. Tap the **Start** button.

2. Wait for the test to complete and verify that all tests pass as indicated by green checkmarks.
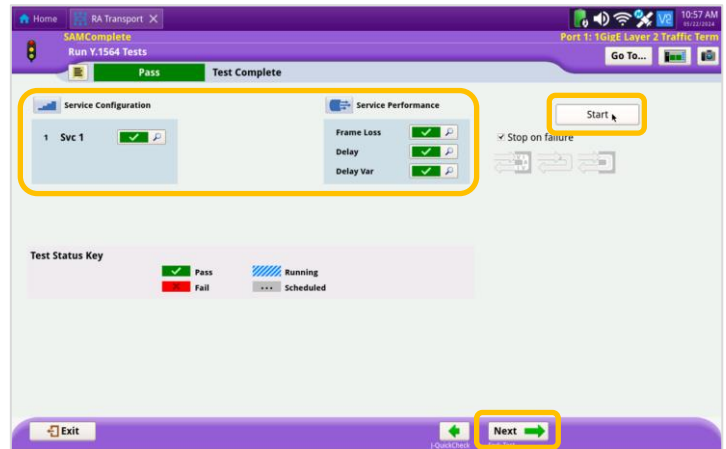

Figure 14: Run Y.1564 Tests

CREATE REPORT

1. Tap the **Next →** button three times to display the **Report** screen.

2. Tap the **Create Report** button.

Figure 15: Create Report

3. Tap the **← Exit** buttons three times to close the report and exit the Y.1564 SAMComplete test.

Figure 16: Exit

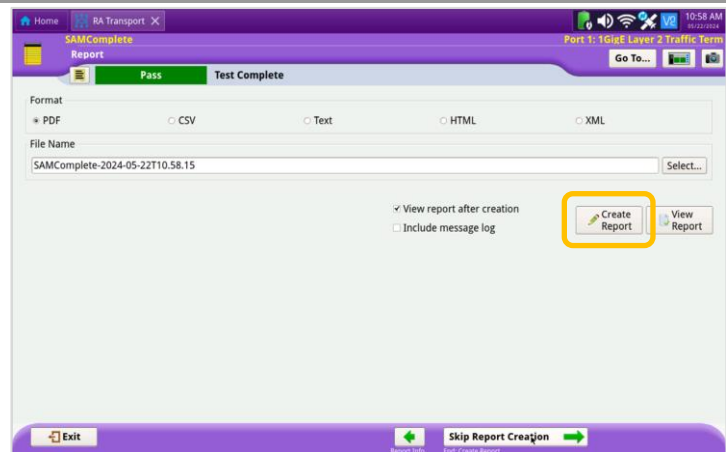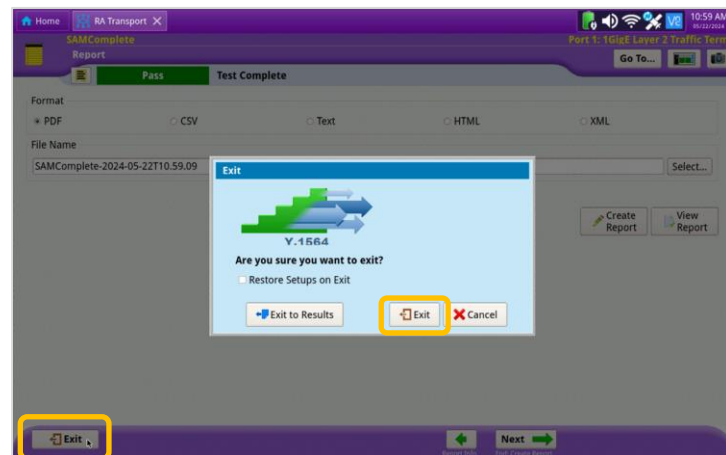Contact Us

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